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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/681,873	10/08/2003	Mark D. MacLean	NOR-038	7381

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EXAMINER	
NGUYEN, QUYNH H	
ART UNIT	**PAPER NUMBER**
2614	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/681,873	MACLEAN ET AL.	
	Examiner	Art Unit	
	Quynh H. Nguyen	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 3-4, 6, 8-11, 13-14, 16, 18-21, 23-26, and 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mannam (2004/0105459).

As to claims 1, 11, and 20, Mannam teaches the steps of:

a plurality of mappers for mapping packet traffic to electrical streams (*mappers/framers/optics in line cards SONET/SDH/OTH for transporting the TDM traffic on the high speed trunk*); and

a host network interface for receiving packet traffic from a packet-switched network (Fig. 5), the host network interface including a packet switch forwarding the packet traffic to one of the mappers on the optical transport network, and the mappers mapping the packer traffic into electrical stream (paragraphs [0038] - [0042]; [0118]).

However, Mannam does not explicitly teach forwarding a first / second portion of the packet to a first / second one of the mappers.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to forwarding a first / second portion of the packet to a first / second one of the mappers for the reason that a skilled artisan would have been motivated by

Mannam's teachings to forward portion of the packet to the proper destination which are known to be used over the SONET system.

As to claims 3, 13, and 23-24, Mannam teaches an optical interface operating at a bandwidth for transporting optical signals onto the optical transport network, the bandwidth being apportioned between the electrical streams (paragraphs [0010] and [0118]).

As to claims 4, 14, and 25, Mannam teaches each mappers in clued LCAS and VCAT technologies for dynamically controlling the bandwidth allocated to the stream produced by that mapper (paragraphs [0006], [0009] - [0010], [0118]).

As to claims 6, 16, and 26, Mannam teaches each mapper uses a Generic Framing Procedure to map packets to a separate electrical stream (paragraph [0007]).

As to claims 8-9, 18-19, and 28-29, Mannam teaches the packet switch uses MPLS to determine to which of the mappers to forward a packet (paragraphs [0011], [0013], [0081] -[0084]).

As to claim 10, Mannam teaches the destinations are one of: a different network elements connected to the optical transport network, different interfaces of the same network element connected to the optical transport network, and the same interface of the same network element (paragraphs [0082] - [0084]).

As to claim 21, Mannam does not teach responding by the optical network element to an address resolution protocol request on behalf of a node in a packet-switched network. It would have been obvious to one of ordinary skill in the art at the

time the invention was made to incorporate the above mentioned feature into the teachings of Mannam in order to have a more efficient and user-friendly system.

3. Claims 2, 5, 7, 12, 15, 17, 22, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mannam (2004/0105459) in view of Dravida et al. (US Patent 7,072,360).

As to claims 2 and 12, Mannam does not teach the packet switch includes an address resolution protocol (ARP) cache.

Dravida et al. teaches the packet switch includes an address resolution protocol (ARP) cache (col. 48, lines 29-38).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Dravida into the teachings of Mannam for the purpose of better mapping.

As to claims 5 and 15, Dravida et al. teaches the packet traffic is Gigabit Ethernet traffic (col. 8, lines 50-63).

As to claims 7, 17, and 27, Dravida et al. teaches the packet switch uses virtual local area network (VLAN) tags to determine to which mappers to forward a packet (col. 26, lines 47-64; col. 27, lines 61-67).

As to claim 22, Dravida et al. teaches the method of claim 20 further comprising caching MAC addresses and IP addresses at the optical network element (col. 9, lines 4-30).

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kamiya (2002/0083190) teaches apparatus and method for GFP frame transfer.

Kamiya (US Patent 7,042,904) teaches method and apparatus for transmitting multiple signal, method and apparatus for receiving multiple signal, multiple signal transmission, method and multiplexer / demultiplexer.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quynh H. Nguyen whose telephone number is 571-272-7489. The examiner can normally be reached on Monday - Thursday from 6:30 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar, can be reached on 571-272-7488. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Quynh H. Nguyen

QUYNH H. NGUYEN
PRIMARY EXAMINER